

shining grass-green; throat, sides of the neck and chest, rich violet-blue; wings purple-brown; tail rather forked; central feathers bronzy green; lateral feathers purplish black; upper mandible and tip of the lower black; basal portion of the latter fleshy white.

Female: upper surface shining grass-green, but of a paler hue than in the male; tail as in the opposite sex, except that the lateral feathers are tipped with white; centre of the throat, abdomen and under tail-coverts white.

Total length, $3\frac{3}{4}$ inches; bill, $\frac{3}{4}$; wing, 2; tail, $1\frac{1}{2}$.

Hab. Near David, on the north side of the Cordillera, Veragua.

I am also indebted to Dr. T. B. Wilson of Philadelphia for the loan of a specimen from Panama. This species is precisely of the same elegant form as the *T. Goudotii*, but is of a larger size, and is at once distinguished from that bird by its blue breast.

5. TROCHILUS (—?) CASTANEOVENTRIS.

Crown of the head metallic green; upper surface green; wings purplish brown; tail dark bronzy green, crossed near the tip by a broad band of black; the lateral feathers tipped with buff, which decreases in extent as the feathers approach the central ones; all the under surface reddish chestnut; bill black.

Total length, 4 inches; bill, $\frac{7}{8}$; wing, $2\frac{1}{4}$; tail, $1\frac{3}{8}$.

Hab. Cordillera of Chiriqui, at an altitude of 6000 feet.

Remark.—This is a moderately sized species, and is not allied to any other member of the family with which I am acquainted; I am therefore unable to assign it a place in any of the sections hitherto proposed; the specimens I possess appear to be immature, and are unfortunately in bad condition.

6. TROCHILUS (—?) NIVEOVENTER.

Crown of the head and back of the neck bronzy green; back rich coppery bronze; wings purple-brown; upper tail-coverts reddish purple; tail purple-black; throat resplendent green; abdomen snow-white; flanks green; under tail-coverts greenish brown, margined with white; bill black, except the basal three-fourths of the lower mandible, which are flesh colour.

Total length, $3\frac{3}{4}$ inches; bill, $\frac{7}{8}$; wing, $2\frac{1}{8}$; tail, $1\frac{1}{4}$.

Hab. Near David; warm countries of Veragua.

Remark.—Nearly allied to *T. Edwardi* and *T. erythronotus*; from the former, however, it differs in the colour of the tail, and from the latter in the white colouring of the breast.

BOTANICAL SOCIETY OF EDINBURGH.

Thursday, 19th June.—Professor Balfour, President, in the Chair.

A copy of the new edition of the Society's Catalogue of British Plants was laid on the table.

Mr. Henry Paul presented a specimen of *Codium Bursa*, collected in the neighbourhood of Brighton.

Dr. Balfour exhibited specimens of *Bryum Wahlenbergii* from Arniston, near Edinburgh, where they were collected by Mr. Veitch,

gardener at Arniston; also of *Gottschea appendiculata* from New Zealand, collected by Mr. Sinclair.

Mr. Sibbald exhibited flowering plants of *Saxifraga hirta*, which he had received from Galtee More, in the county of Tipperary, one of the few stations recorded for this species. Mr. Sibbald agreed with Mr. Babington's views as to the distinctness of *S. hirta* from *S. hypnoides* and *S. affinis*, and referred to the figures in 'English Botany' as characteristic of the plants.

The following papers were read:—

1. "On the Government Teak Plantations of Mysore and Malabar." By Hugh Cleghorn, M.D., H.E.I.C.S.

The author exhibited specimens of teak from the plantations of Mysore and Malabar, and stated the glory of the Ghaut Forest was its teak, the vast importance of which was becoming daily more known and appreciated; the timber indeed had been long prized. Bontius described the tree under the name of *Quercus indica*, though, except as regards the timber, it has no resemblance to the oak. Rheede has given an accurate representation of *Tectona grandis*, and a good account of the teak forests of Malabar:—"Crescit ubique in Malabar, at præsertim in Provincia Calicolan (Calicut) ubi integræ sylvæ ingentium harum arborum reperiuntur. * * * Lignum vero hujus arboris, quercino ligno haud absimile, operi fabrilis accommodum, atque Naupegis ad navium fabricam in usu est: sed in aquis (præsertim dulcibus) teredini facile obnoxium." Dr. Cleghorn stated that he had travelled in 1847 the route followed by Buchanan in 1801 (see Journal, vol. iii. p. 287), and that the teak forests therein mentioned had well nigh disappeared. Much attention is now given to this important article of trade by the government of India; plantations have been established in Malabar and Mysore, and their present thriving condition gives the prospect of eventual success.

2. "On *Chantransia*, Desv." By John Ralfs. This paper will be found at p. 302.

3. "Notice of *Belenia præalta* of Jacquemont." By Dr. Balfour. Dr. Balfour stated that the plant exhibited by him at the last meeting, as a species of *Hyoscyamus*, turns out to be the *Belenia præalta* of Jacquemont. The genus *Belenia* differs from *Hyoscyamus* in its corymbose inflorescence and more regular flowers. The plant is described and figured in Jacquemont's work. It grows on the Himalaya at great elevations, and towards the northern slope, abounding on the elevated flat plains. The plant in the Botanic Garden was raised from seeds sent by Major Madden to Mr. Moore of Glasnevin.

4. "Remarks on some Australian products." By Samuel Mossman. Mr. Mossman exhibited specimens of the following products brought by him from Australia:—

1. New Zealand Flax.

2. "Kauri Gum," of commerce.—"This is a very pure resin from the *Dammara australis* or Kauri Pine of New Zealand, and has been erroneously termed a *gum* by the settlers. The tree bears fertile and sterile cones, and sheds its bark like the *Eucalyptus* of Australia.

The timber is much valued in the navy for making large and durable spars. A remarkable circumstance connected with the collecting of this resin is, that it is principally found amongst sandy soil, on open fern-land, where not the vestige of a tree is to be found; a fact which indicates the existence at a recent date of extensive forests of this pine, having merely surface roots on the thin soil of these islands, deriving their nourishment mainly from the humid state of the atmosphere which characterizes that climate."

3. "Mimosa Bark," of commerce.—"This is the bark of *Acacia dealbata*, and contains a greater per-centage of *tannin* than any other bark. It is a handsome tree, from 15 to 30 feet high, forming luxuriant groves on the banks of streams, most abundant in Port Phillip and Twofold Bay, between the parallels of lat. 34° and 38°. These groves, when in full blossom, send forth a fragrance which may be detected several miles distant, and on approaching them they present one of the most picturesque features in Australian forest scenery."

4. Seeds from the cone of *Araucaria Bidwillii*.

5. Fossil Ferns in Shale, from the Coal-measures of Australia. "Evidence has been found of the carboniferous strata running along the east coast of Australia, extending north and south a distance of 1000 miles."

Mr. Mossman also exhibited twenty new species of Australian plants, and remarked—"Since Brown's 'Prodromus' was published in 1810, very little has been done in illustrating the botany of Australia. Few genera have been added to the list given by this eminent botanist. Although Cunningham, Labillardière and others have added materially to our list of species, there is still a vast field open in this interesting region to future additions in botanical discovery, as is evident from the little I have done myself in that distant land; having brought home forty new species, some of which I now exhibit. In my herbarium of Ferns is one rather interesting to the student of this department of botany. No. 667 may be considered a variety of *Stegania (Lomaria) nuda*, R. Br.; it has the fructification of *Lomaria*, but the venation of *Blechnum* in parts of the frond, but not in all. Sir William Hooker and Mr. J. Smith have observed it before, and do not agree with Mr. Brown entirely in his discrimination of the two genera; for example, Mr. Smith considers the *Lomaria Spicant* of Mr. Brown as a *Blechnum*, and this variety of *Lomaria nuda*, Br., tends merely to show, according to him, that it too is truly a *Blechnum*, not a *Lomaria*."

6. Dr. Balfour made some remarks on the glandular stipules of Cinchonaceæ.—Mr. Weddell states that on the inner surface of the base of the stipules of *Cinchona* and allied genera, he had observed numerous small glands which secreted a gummy fluid. In *Cinchona* the secretion is transparent and fluid, while in several other genera it is solid and opaque, and seems to glue the stipules to the bud which they embrace; this is particularly the case in *Pimentelia glomerata*. In *Rondeletia* the secretion is soft, like wax, and of a beautiful green colour. The inhabitants of Peru give it the name of Aceite-Maria, or Oil of Mary; they collect it carefully, and use it as an external application in various diseases. The stipular glands have an oval or

lanceolate form, and are somewhat pointed. The axis of the gland is in the form of an elongated cone; it is composed of elongated and dense cellular tissue. Dr. Balfour, with the aid of his pupil, Mr. Matthews, examined these glands in many Cinchonaceæ, and they detected them in fresh specimens of the following:—*Cinchona Calisaya*, *Burchellia capensis*, *Cephaëlis Ipecacuanha*, *Coffea arabica*, *Ixora javanica*, *Mussaenda frondosa*, *Rondeletia speciosa*, *Pavetta indica*, *Luculia gratissima* and *Pinceana*, *Pentas carnea*, *Gardenia Stanleyana*, and other species. In some the secretion was beautifully coloured.

Dr. Balfour stated that he had recently received a letter from Dr. Walker-Arnott, in which he remarks, that in preparing spiral vessels to show them fresh, he finds the most easy plan is to take the petiole or peduncle of *Pinguicula vulgaris* and squeeze it between two glass slides, so that it may become thin and transparent. In this way a preparation is made, which, when put under the microscope, exhibits spiral vessels and annular ducts distinctly without any further trouble.

Dr. Balfour exhibited specimens of *Knappia agrostidea*, recently collected by Mr. Syme at Gullane Links, but which he had subsequently ascertained to have been sown there by several botanists at different times; as also *Ranunculus confusus*, Gr. et G., from a pond at the same place; and *R. trichophyllus*, from the pools at Gullane: the latter is considered by Mr. Babington and others as a variety of *R. aquatilis*. Dr. Balfour also exhibited from Mr. Syme dried specimens of *Narcissus poeticus*, retaining the beautiful colour of the flower; the specimens had been received in a fresh state from the Rev. Mr. Bree, Allesley Rectory.

MISCELLANEOUS.

ORTHAGORISCUS MOLA.

To the Editors of the Annals of Natural History.

Edinburgh, 7 West Maitland Street,
September 20, 1851.

GENTLEMEN,—Having had the opportunity this morning of examining a recent specimen of the *Short Sun-Fish*, *Orthagoriscus mola*, it occurred to me it might be of sufficient interest to justify my troubling you with a note of its capture. It was taken by some fishermen while swimming or rather floating near the surface of the sea, off the coast of Haddingtonshire, near Dunglass, on the 18th of this month. Its length was about 21 inches from the point of the nose to the extremity of the tail; and its breadth in front of the dorsal fin across to anus, immediately in front of anal fin, was 13 inches 6 lines; the length of the dorsal fin was 9 inches, and the anal 8 inches 6 lines, both being very moveable at their junction with the body; the length of the caudal fin, which unites these two other fins together, was 2 inches at its centre, the long “hinge-like” part connecting it to the body being 1 inch 9 lines in breadth at the same place; the rays of